IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION

PACT XPP TECHNOLOGIES, AG	§	
	§	
Plaintiff,	§	**C.A. No. 2-07cv563 RSP**
	§	
vs.	§	
	§	
XILINX, INC. & AVNET, INC., et al.	§	
	§	
Defendant.	§	

PACT XPP TECHNOLOGIES, AG'S REPLY BRIEF IN SUPPORT OF ITS MOTION FOR ENHANCED DAMAGES

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I. Xilinx's Request for the Court to Re-Decide Factual Questions is Improper

Xilinx's Opposition focuses on its skewed interpretation of cherry-picked evidence to advance its contention that it was operating in good faith. Xilinx Br. at 2-10. But this type of argument has been squarely rejected. *See Jurgens v. CBK, Ltd.*, 80 F.3d 1566, 1573 (Fed. Cir. 1996) (enhancement analysis cannot be based on "alleged conduct or actions that the jury has expressly rejected as a factual matter"); *Spectralytics, Inc. v. Cordis Corp.*, 649 F.3d 1336, 1348 (Fed. Cir. 2011) ("[A]fter willful infringement is found, it is inappropriate to discount evidence relating to whether there was adequate investigation of adverse patent rights.").[1] Further, Xilinx's JMOL motion (Dkt. No. 394) challenges whether PACT cited evidence sufficient to satisfy the objective and subjective prongs of willfulness. If this Court is assessing enhanced damages, it necessarily rejected Xilinx's Willfulness JMOL and the factual arguments therein.

In any event, the jury resolved Xilinx's mental state. It was instructed that to find willfulness it must consider Xilinx's "state of mind" to determine whether Xilinx "actually knew or should have known that its actions constituted an unjustifiably high risk of infringement of a valid and enforceable patent." TT (5/18 AM) at 25:11-18.[2] The jury heard Xilinx spin the very same evidence in support of the very same arguments. But it rejected Xilinx's story as not credible, finding that Xilinx knew or should have known that PACT's patents were valid and infringed. As explained in PACT's JMOL briefing on willfulness (Dkt. No. 409) and opening brief for this motion (Dkt. No. 402), substantial evidence supports the jury's finding and, accordingly, a contrary conclusion cannot be relied upon in the enhancement analysis.

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[1] *Bard Peripheral Vascular, Inc. v. W.L. Gore & Assoc, Inc.*, 682 F.3d 1003, 1005 (Fed. Cir. 2012) did not change this. It held that the "objective prong of the willfulness standard . . . is a question of law." *Id.* (emphasis added). But the infringer's state of mind is only relevant to the subjective prong of the willfulness test, *In re Seagate Tech., LLC.*, 497 F.3d 1360, 1371 (Fed. Cir. 2007) (en banc). The subjective prong remains a question of fact reviewed for substantial evidence. *Bard*, 682 F.3d at 1008.

[2] PACT has attached as Exhibits A and B, respectively, all trial exhibits and testimony cited herein.

II. Xilinx Knew of PACT's Patents But Disregarded PACT's Patent Rights

Xilinx asserts that, legally, it could not "kn[o]w of [PACT's] patent protection"[3] until it knew "that PACT's patents related in any way to Xilinx's products." Xilinx Br. at 6. But this *Read* factor asks whether the infringer, after he "knew of the other's patent protection," then "investigated the scope of the patent." *Read Corp. v. Portec*, 970 F.2d 816, 827 (Fed. Cir. 1992). Xilinx's argument that one cannot "know of the other's patent protection" before one has "investigated the scope of the patent" is illogical. Knowledge of another's "patent protection" means knowledge of the existence of the patents, triggering a duty to investigate their scope.

In any event, Xilinx did investigate PACT's patents and was knowingly treading on PACT's rights. Xilinx's knowledge of PACT's patent scope is reflected not only by its general recognition that PACT had a "strong portfolio,"[4] but also by more specific acknowledgements by Xilinx employees that PACT's patents involve adding "coarse grain" circuitry (referred to by one employee as a "hard core") to FPGAs.[5] Xilinx certainly knew its interface units were "coarse grain" and "hard core" interface elements.[6] For example, Xilinx's product literature

[3] Xilinx's criticism of PACT for omitting the words "when he knew of the other's patent protection" from *Read* factor 2 is surprising given that the Eastern District of Texas used the same paraphrasing in *DataTreasury Corp. v. Wells Fargo & Co.*, 2010 WL 5140718, at *2 (E.D. Tex. Sept. 27, 2010). Additionally, there is no dispute that Xilinx knew of PACT's patents. *See* PX98.

[4] S*ee, e.g.*, PX98 ("**Seems like a strong portfolio**"); PX201 (". . . I would engage because of the patent portfolio . . ."); PX114 ("According to Ivo they may have some interesting patents and IP . . ."); and PX112 (". . . I would be interested in their patents.").

[5] Xilinx admits that Xilinx employee Mr. Gibbons "reported that he warned PACT of the 'hurdles of adding hard cores' to Xilinx's chips." Xilinx Br. at 3 (emphasis added). Xilinx also notes that it "chose not to partner with PACT because it did not see sufficient benefit in PACT's technology to risk the expense of adding new cores into its FPGAs. . . ." *Id.* at 13. As Dr. Bolsens, Dr. Tredennick, and Mr. Vorbach all recognized, PACT's patented technology relates to "coarse grained"/"hard core" circuitry. PX112 (Bolsens: coarse grained); TT (5/15PM) at 35:14 (Tredennick: hard core); TT (5/14PM) at 116:16-18 (Vorbach: coarse grained); *see also* TT (5/15AM) at 34:1-24; *id.* at 38:20-23 (Weber testifying that PACT suspected infringement after discovering Xilinx's FPGAs were coarse grained).

[6] The low-level building blocks on FPGAs, called configurable logic blocks ("CLBs"), are "fine grained." TT (5/14PM) at 116:4-9; TT (5/15AM) at 86:22-24. "Coarse grained" circuitry, in contrast, is larger and more complex. TT (5/14PM) at 116:9-12. "Hard cores," like "coarse grain" circuits, refer to circuits not made out of CLBs. TT (5/15AM) at 102:3-5, 125:21-126:4.

describes the RocketIO as a "hard core placed in the FPGA fabric. . . ." PX74 at XL00025145.[7] Xilinx cannot credibly feign ignorance that (a) the '106 and '181 patents involve "coarse grain"/"hard core" interface units; or (b) Xilinx's post-2002 FPGAs utilize such interface units.

Instead, Xilinx emphasizes that PACT described its product designs as different from Xilinx's products and that Xilinx was not interested in PACT's product designs. This is a red herring. PACT never described its patent claims as differing from Xilinx's products and Xilinx never said that it was not interested in PACT's patents. Indeed, the very purpose of the "patent grab" email was to identify valuable patents at companies without successful products. PX98. The author stated that several companies, including PACT, "will probably all fail commercially for a variety of reasons like execution, lack of tools, lack of acceptance etc, but I do not think that this invalidates the underlying principles." *Id.* (emphasis added). And Dr. Bolsens wrote: "I would not bet my dollars on PACT but I would be interested in their patents." PX112.

Xilinx's attempt to recast its interest in PACT's patents as wholly speculative and exclusive of any possible relevance to its then-current (and infringing) products rings hollow.[8] Dr. Bolsen's statement that "[i]f you believe that coarse grain arrays will prevail in the future, [PACT] ha[s] a strong patent portfolio" supports PACT's position. PX112. For something to prevail, it must first exist. And, as the very next sentence indicates, Dr. Bolsens did believe that coarse grain arrays would prevail because he was "interested in [PACT's] patents." *Id.* It defies logic to suggest that although Xilinx's Chief Technology Officer believed that certain existing technology would prevail in the future, (a) Xilinx, "the leading FPGA-maker in the world" with

[7] The RocketIO, EMAC, and PCIe are all "hard core" circuits. TT (5/15AM) at 79:21-22 (RocketIO); *id.* at 80:5-8 (EMAC); *id.* at 106:1-6 (PCIe).

[8] Xilinx's reliance on the "future of computation" language in the "patent grab" email does not help its cause. This email was sent on March 15 in 2003—just one year after Xilinx introduced its first infringing FPGA. PX98; TT (5/15AM) at 78:17-20. It is not unreasonable to conclude (as the jury did) that a recent product could be considered part of the "future of computation." For example, one might reasonably argue that "tablets could be the future of computers" even though the iPad was released two years ago.

"cutting-edge technology" (TT (5/14AM) at 81:4-6) did not use that technology; and (b) Xilinx believed that a "strong patent portfolio" directed to that technology was irrelevant to its FPGAs.

Finally, Xilinx's cited cases are inapposite because they involve situations where there was no evidence that the defendant's knowledge of the patent flowed to high-level employees with knowledge of the infringing products. *See Shatterproof Glass Corp. v. Libbey-Owens Ford*, 758 F.2d 613, 628 (Fed. Cir. 1985); *Cordance Corp. v. Amazon.com, Inc.*, 639 F. Supp. 2d 406, 413-14 (D. Del. 2009); *MacPike v. Am. Honda Motor Co.*, 1993 WL 632261, at *8 (N.D. Fla. Oct. 1, 1993). Here, Xilinx's most relevant personnel—including its Chief Technology Officer—knew about and reviewed PACT's patents. *See, e.g.*, PX98, PX201, PX114, PX112.[9]

III. Xilinx's Arguments With Respect to the Other *Read* Factors Lack Merit

Once Xilinx's request to revisit the jury's intent finding is properly rejected, only flawed legal theories remain. Xilinx reads Factor 4 (size/financial condition) out of the *Read* analysis entirely. Xilinx Br. at 11 ("Xilinx's financial condition has nothing to do with its culpability and should not be used as a justification enhancement [sic]."). But this factor punishes and deters willful infringement, which necessarily entails a larger enhancement for defendants with significant resources. *DataTreasury*, 2010 WL 5140718, at *4. And, as explained in PACT's opening brief and JMOL opposition (Dkt. No. 409), neither Xilinx's application of incorrect claim constructions or cursory invalidity theory raised a substantial defense (Factor 5).

Xilinx argues that under *Read* Factor 6, damages should not be enhanced because PACT sought no preliminary injunction. But the *Seagate* passage relied upon by Xilinx expressly applies only to willfulness theories "based solely on the infringer's post-filing conduct." 497

[9] Xilinx also argues that it had no reason to investigate PACT's patents because PACT did not notify it of the infringement. No such legal requirement exists. *See Fractus, S.A. v. Samsung Elecs. Co.*, 2012 WL 2505741, at *38 (E.D. Tex. June 28, 2012) (rejecting Samsung's argument that it had "no reason to investigate . . . because Fractus never informed Samsung about the infringement"); *i4i Ltd. P'ship v. Microsoft Corp.*, 670 F. Supp. 2d 568, 594 (E.D. Tex. 2009), *aff'd*, 598 F.3d 831 (Fed. Cir. 2010).

F.3d at 1374 (emphasis added). The Xilinx emails that form the foundation of PACT's willfulness case predate the lawsuit. *See* PX98, PX201, PX114, PX112. Xilinx's only other authority is a Florida district court case that conflicts with this District's approach. *See* PACT Opening Br. at 12. Finally, as described in detail in PACT's Proposed Findings of Fact & Conclusions of Law, PACT did not contribute to the delay because it filed suit shortly after it realized its previous understanding of Xilinx's technology was mistaken and that Xilinx was infringing. Dkt. No. 407, at 10-29. With respect to Factor 7 (remedial action), Xilinx does not dispute that it failed to take any remedial action, nor does it suggest that it will take any future remedial action even in the face of a jury verdict of willful infringement.

Xilinx's argument that "[n]o harmful intent can be inferred from Xilinx's reasoned business decision not to add unproven technology into its flagship products" misses the point. *See* Xilinx Br. at 13. First, those "flagship products" infringe—*i.e.*, they already include PACT's technology. Second, PACT does not assert that the decision not to add PACT's product designs to Xilinx's FPGAs justifies enhancement. Instead, PACT's argument is that Xilinx's decisions to decline a partnership even though it knew PACT's patents were valuable, encourage another company to do the same, disregard its NDA obligations, and wait for PACT's patents to become available in a bankruptcy sale demonstrate that Xilinx did not believe it needed to take PACT's patent rights seriously. This type of conduct weighs in favor of enhancement under Factor 8. *See z4 Techs., Inc. v. Microsoft Corp.*, 2006 WL 2401099, at *26 (E.D. Tex. Aug. 18, 2006).[10]

[10] Finally, as discussed above, regardless of the terminology used, Xilinx knew that its products were "coarse grained"/"hard core" and that PACT's technology was "coarse grained"/"hard core." And there is nothing "absurd" about the fact that Xilinx knew PACT was mistaken about Xilinx's technology because Mr. Vorbach stated his misconception in an email to Dr. Bolsens. PX468. Although Dr. Bolsens knew that PACT's technology was "coarse grained" (PX112) and PACT thought Xilinx's FPGAs were "fine grained" (PX468), he declined to correct PACT's mistake when he responded to the email. DX75.

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CERTIFICATE OF SERVICE

The undersigned hereby certifies that all counsel of record who are deemed to have consented to electronic service are being served with a copy of this document via the Court's CM/ECF system per Local Rule CV-5(a)(3).

/s/ Nathan J. Davis